What is claim d is:

1. A recombinant super-compound interferon or a functional equivalent thereof with changed spatial configuration and improved efficacy.

2. The interferon of claim 1, wherein the interferon is either α, β, or ω.

3. The interferon of claim 1, wherein the interferon has higher efficacy than the interferon described in U.S. Patent Nos. 4,695,623 or 4,897,471.

4. A super-compound interferon of claim 1 with unique secondary or tertiary structure.

5. The super-compound interferon of claim 1, wherein the 3-dimensional change is the result of changes of its production process.

6. A super-compound interferon of claim 1, produced by a high efficiency expression system which uses a special promoter.

7. The super-compound interferon of claim 6, wherein the promoter is P_{BAD}.

8. The super-compound interferon of claim 5, wherein its gene is artificially synthesized cDNA with adjustment of its sequence from the wild-type according to codon preference of E. coli.

9. The super-compound interferon of claim 1, which possesses anti-viral or anti-tumor activity.

10. The super-compound interferon of claim 9, wherein the virus diseases comprises hepatitis A, hepatitis B, hepatitis C, other types of hepatitis, infections caused by Epstein-Barr virus, Cytomegalovirus, herpes

simplex viruses, other herpes viruses, papovaviruses, poxviruses, picornaviruses, adenoviruses, rihnoviruses, human T cell leukaemia viruses I, human T cell leukaemia viruses II, or human T cell leukemia viruses III.

11. The super-compound interferon of claim 10, which directly inhibits the DNA duplication and secretion of HBsAg and HBeAg of Hepatitis B Virus.

12. An artificial gene codes for the super-compound interferon or its equivalent of claim 1.

13. A vector comprising the gene of claim 12.

14. An expression system comprising the vector of claim 13.

15. A host cell comprising the vector of claim 13.

16. A process for production of recombinant super-compound interferon comprising introducing an artificial gene with selected codon preference into an appropriate host, culturing said introduced host in an appropriate condition for the expression of said compound interferon and harvesting the expressed compound interferon.

17. The process for production of claim 16, comprising extraction of super-compound interferon from fermentation broth, collection of inclusion body, denaturation and renaturation of the harvested protein.

18. The process of claim 16, wherein the process maintains the high efficacy even when the super-compound interferon is used with an agent and in a particular concentration.

19. The process of claim 16, comprising separation and

purification of the super-compound interferon.

20. The process of claim 16, comprising lyophilization of the purified super-compound interferon.

21. The process of claim 16, comprising production of liquid injection of super-compound interferon.

22. The produced super-compound interferon by the process of any of the claims 16-21.

23. A composition comprising the recombinant super-compound interferon of claim 1 and a suitable carrier.

24. A pharmaceutical composition comprising the recombinant super-compound interferon of claim 1 and a pharmaceutically acceptable carrier.

25. A method for preventing or treating viral diseases or tumor in a subject comprising administering to the subject an effective amount of the super-compound interferon of claim 1.

26. The method of claim 25 wherein the viral diseases is hepatitis A, hepatitis B, hepatitis C, other types of hepatitis, infections of viruses caused by Epstein-Barr virus, Cytomegalovirus, herpes simplex viruses, or other type of herpes viruses, papovaviruses, poxviruses, picornaviruses, adenoviruses, rihnoviruses, human T cell leukaemia viruses I, or human T cell leukaemia viruses II, or human T cell leukemia virus III.

27. The method of claim 25 wherein super-compound interferon was administered via oral, vein injection, muscle injection, peritoneal injection, subcutaneous injection, nasal, mucosal administration, by inhalation via an inspirator.

28. The method of claim 25 wherein super-compound interferon was administered following the protocol of injection 9 µg or 15 µg per day, 3 times a week, total 24 weeks.